

[illegible]


```
1 0001 0 MODULE LIB$SYS_TRNLOG (%TITLE'Translate logical name'  
2 0002 0 IDENT = '1-010' ! File: LIBTRNLOG.B32 EDIT: SBL1010  
3 0003 0 ) =  
4 0004 1 BEGIN  
5 0005 1  
6 0006 1 *****  
7 0007 1 *  
8 0008 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *  
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25 0025 1 *  
26 0026 1 *  
27 0027 1 *****  
28 0028 1  
29 0029 1  
30 0030 1 ++  
31 0031 1 FACILITY: General Library Support  
32 0032 1  
33 0033 1 ABSTRACT:  
34 0034 1  
35 0035 1 Using $TRNLOG translate a logical name, returning the  
36 0036 1 resultant string using the semantics of the caller's string.  
37 0037 1 Parameter DSBMSK is presented to this routine by-reference and  
38 0038 1 is promoted to by-value for presentation to $TRNLOG  
39 0039 1  
40 0040 1 ENVIRONMENT: VAX-11 User Mode  
41 0041 1  
42 0042 1 AUTHOR: R. Reichert, CREATION DATE: 20-SEPT-1979  
43 0043 1  
44 0044 1 MODIFIED BY:  
45 0045 1  
46 0046 1 1-001 - Original. RKR 20-SEPT-1979  
47 0047 1 1-002 - Change name to LIB$SYS_TRNLOG. RKR 15-OCT-79  
48 0048 1 1-003 - Correct some minor errors in RSLEN and returning  
49 0049 1 status, and improve the comments. JBS 19-OCT-1979  
50 0050 1 1-004 - Add code to promote by-reference parameter to by-value  
51 0051 1 parameter. RKR 1-NOV-79  
52 0052 1 1-005 - Change STR$ codes to LIB$ codes. RKR 22-JAN-80  
53 0053 1 1-006 - Enhance to recognize additional classes of string descriptors  
54 0054 1 on output by always getting data into internal buffer and  
55 0055 1 using LIB$COPY DXDX6 to deliver to caller's buffer.  
56 0056 1 LIB$ANALYZE_SDESC_R3 is used to compute the number of bytes  
57 0057 1 actually copied after the copy operation completes.
```

```
: 58      0058 1 | Change to use LIB$SCOPY_DXDX6 instead of STR$COPY_DX. This
: 59      0059 1 | avoids having to change STR$ statuses to LIB$ statuses and
: 60      0060 1 | eliminates need for a handler.
: 61      0061 1 | RKR 29-MAY-1981.
: 62      0062 1 | 1-007 - Add special-case code to process string descriptors that
: 63      0063 1 | "read" like fixed string descriptors. RKR 7-OCT-1981.
: 64      0064 1 | 1-008 - Redirect jsb's from LIB$ANALYZE_SDESC_R3 to
: 65      0065 1 | LIB$ANALYZE_SDESC_R2. Use LIB$SCOPY_RDX6 for copying.
: 66      0066 1 | RKR 18-NOV-1981.
: 67      0067 1 | 1-009 - Use LNM$C_NAMLENGTH as the maximum name/translation length.
: 68      0068 1 | Use prologue file, other improvements. SBL 10-Jan-1983
: 69      0069 1 | 1-010 - Return status from $TRNLOG if otherwise successful. SBL 15-Mar-1983
: 70      0070 1 | --
: 71      0071 1 |
: 72      0072 1 | !<BLF/PAGE>
```



```
: 74      0073 1 |
: 75      0074 1 | PROLOGUE FILE:
: 76      0075 1 |
: 77      0076 1 |
: 78      0077 1 | REQUIRE 'RTLIN:LIBPROLOG';          ! LIB$ definitions
: 79      0148 1 |
: 80      0149 1 |
: 81      0150 1 | TABLE OF CONTENTS:
: 82      0151 1 |
: 83      0152 1 |
: 84      0153 1 | FORWARD ROUTINE
: 85      0154 1 |     LIB$SYS_TRNLOG;                ! Translate logical name
: 86      0155 1 |
: 87      0156 1 |
: 88      0157 1 | MACROS:
: 89      0158 1 |
: 90      0159 1 |     NONE
: 91      0160 1 |
: 92      0161 1 | EQUATED SYMBOLS:
: 93      0162 1 |
: 94      0163 1 |     NONE
: 95      0164 1 |
: 96      0165 1 | OWN STORAGE:
: 97      0166 1 |
: 98      0167 1 |     NONE
: 99      0168 1 |
: 100     0169 1 | EXTERNAL REFERENCES:
: 101     0170 1 |
: 102     0171 1 |
: 103     0172 1 | EXTERNAL ROUTINE
: 104     0173 1 |     LIB$ANALYZE_SDESC_R2 : LIB$ANALYZE_SDESC_R2$LINKAGE, ! Extract length
: 105     0174 1 |                                     ! and address of
: 106     0175 1 |                                     ! 1st data byte
: 107     0176 1 |                                     ! from descriptor
: 108     0177 1 |     LIB$COPY_DXDX;      ! Copy string by descriptor.
```



```
110 0178 1 GLOBAL ROUTINE LIBSSYS_TRNLOG (%SBTTL'Translate logical name'
111 0179 1 LOGNAM: REF BLOCK [, BYTE] Logical name descriptor
112 0180 1 RSLEN: REF VECTOR [, WORD], Result length
113 0181 1 RSLBUF: REF BLOCK [, BYTE], Resultant string
114 0182 1 TABLE: REF VECTOR [, BYTE], Table number
115 0183 1 ACMODE: REF VECTOR [, BYTE], Access mode
116 0184 1 DSBMSK: REF VECTOR [, BYTE] Disable mask
117 0185 1 ) =
118 0186 1
119 0187 1 ++
120 0188 1 FUNCTIONAL DESCRIPTION:
121 0189 1
122 0190 1 Using $TRNLOG translate a logical name, returning the
123 0191 1 resultant string using the semantics of the caller's string.
124 0192 1 Parameter DSBMSK is presented to this routine by-reference and
125 0193 1 is promoted to by-value for presentation to $TRNLOG
126 0194 1
127 0195 1 See $TRNLOG system service description
128 0196 1
129 0197 1 FORMAL PARAMETERS:
130 0198 1
131 0199 1 LOGNAM.rt.dx address of logical name string descriptor
132 0200 1
133 0201 1 RSLEN.w.w.r address of word to receive length of
134 0202 1 resultant name string
135 0203 1 (Optional parameter)
136 0204 1
137 0205 1 RSLBUF.wt.dx address of result string buffer descriptor
138 0206 1
139 0207 1 TABLE.wb.r address of byte to receive logical name table
140 0208 1 number
141 0209 1 (Optional parameter)
142 0210 1
143 0211 1 ACMODE.wb.r address of byte to receive access mode of entry
144 0212 1 (process table only)
145 0213 1 (Optional parameter)
146 0214 1
147 0215 1 DSBMSK.rbu.r Address of
148 0216 1 table search disable mask
149 0217 1 (Optional parameter)
150 0218 1
151 0219 1 Bit Set Meaning
152 0220 1 -----
153 0221 1 0 Do not search system
154 0222 1 1 Do not search group
155 0223 1 2 Do not search process
156 0224 1
157 0225 1
158 0226 1 IMPLICIT INPUTS:
159 0227 1
160 0228 1 NONE
161 0229 1
162 0230 1 IMPLICIT OUTPUTS:
163 0231 1
164 0232 1 NONE
165 0233 1
166 0234 1 COMPLETION CODES:
```



```
167 0235 1 |
168 0236 1 | SSS NORMAL Procedure successfully completed
169 0237 1 | LIB$ WRONUMARG Wrong number of arguments
170 0238 1 | From LIB$ COPY DXDX
171 0239 1 | LIB$ STRTRU Success, but source string truncated
172 0240 1 | LIB$ INSVIRMEM Insufficient virtual memory
173 0241 1 | LIB$ INVSTRDES Invalid string descriptor
174 0242 1 | From $TRNLOG
175 0243 1 | SSS_NOTRAN Successful, but input logical name string was
176 0244 1 | placed in output buffer because no equivalence
177 0245 1 | name was found.
178 0246 1 | SSS_ACCVIO The logical name string or string descriptor
179 0247 1 | cannot be read, or the output length, output
180 0248 1 | buffer, or table or access mode field cannot
181 0249 1 | be written by the caller.
182 0250 1 | SSS_IVLOGNAM The specified logical name string has a length
183 0251 1 | of zero or has too many characters.
184 0252 1 |
185 0253 1 | SIDE EFFECTS:
186 0254 1 |
187 0255 1 | NONE
188 0256 1 |
189 0257 1 | --
190 0258 1 |
191 0259 2 | BEGIN
192 0260 2 |
193 0261 2 | BUILTIN
194 0262 2 | NULLPARAMETER;
195 0263 2 |
196 0264 2 | LOCAL
197 0265 2 | LOCAL_RSLBUF: VECTOR [LNMSC NAMLENGTH, BYTE], ! Local resultant buffer
198 0266 2 | LOCAL_RSLBUF_DESC: BLOCK [8, BYTE], ! Descriptor for local buffer
199 0267 2 | LOCAL_LOGNAM_DESC: BLOCK [8, BYTE], ! Local copy of LOGNAM descriptor
200 0268 2 | STATUS1, TRNLOG_STATUS, COPY_STATUS; ! Statuses from called routines
201 0269 2 |
202 0270 2 | !+
203 0271 2 | ! Validate argument count.
204 0272 2 | !-
205 0273 2 |
206 0274 2 | $LIB$VALIDATE_ARGCOUNT (3,6);
207 0275 2 |
208 0276 2 | !+
209 0277 2 | ! Construct static descriptor to describe LOGNAM string.
210 0278 2 | !-
211 0279 2 |
212 0280 2 | LOCAL_LOGNAM_DESC [DSC$B_DTYPE] = DSC$K_DTYPE_T;
213 0281 2 | LOCAL_LOGNAM_DESC [DSC$B_CLASS] = DSC$K_CLASS_S;
214 0282 2 | STATUS1 = LIB$ANALYZE_SDESC R2 (LOGNAM [0,0,0,0];
215 0283 2 | LOCAL_LOGNAM_DESC [DSC$B_LENGTH], LOCAL_LOGNAM_DESC [DSC$A_POINTER]);
216 0284 2 | IF NOT .STATUS1
217 0285 2 | THEN
218 0286 2 | RETURN .STATUS1;
219 0287 2 |
220 0288 2 | !+
221 0289 2 | ! Construct a static descriptor to receive the translated string from
222 0290 2 | ! VAX/VMS
223 0291 2 | !-
```



```

: 224      0292 2
: 225      0293 2
: 226      0294 2
: 227      0295 2
: 228      0296 2
: 229      0297 2
: 230      0298 2
: 231      0299 2
: 232      0300 2
: 233      0301 2
: 234      P 0302 2
: 235      P 0303 2
: 236      P 0304 2
: 237      P 0305 2
: 238      P 0306 2
: 239      P 0307 2
: 240      0308 2
: 241      0309 2
: 242      0310 2
: 243      0311 2
: 244      0312 2
: 245      0313 2
: 246      0314 2
: 247      0315 2
: 248      0316 2
: 249      0317 2
: 250      0318 2
: 251      0319 2
: 252      0320 2
: 253      0321 2
: 254      0322 2
: 255      0323 2
: 256      0324 3
: 257      0325 3
: 258      0326 3
: 259      0327 3
: 260      0328 3
: 261      0329 2
: 262      0330 2
: 263      0331 2
: 264      0332 2
: 265      0333 2
: 266      0334 2
: 267      0335 2
: 268      0336 2
: 269      0337 2
: 270      0338 2
: 271      0339 2
: 272      0340 2
: 273      0341 2
: 274      0342 2
: 275      0343 1

LOCAL_RSLBUF_DESC [DSC$W_LENGTH] = LNM$C_NAMLENGTH;
LOCAL_RSLBUF_DESC [DSC$B_DTYPE] = DSC$K_DTYPE_T;
LOCAL_RSLBUF_DESC [DSC$B_CLASS] = DSC$K_CLASS_S;
LOCAL_RSLBUF_DESC [DSC$A_POINTER] = LOCAL_RSLBUF;

!+
! Do the $TRNLOG.
!-

TRNLOG_STATUS = $TRNLOG (
    LOGNAM = LOCAL_LOGNAM_DESC [0,0,0,0],
    RSLLEN = LOCAL_RSLBUF_DESC [DSC$W_LENGTH],
    RSLBUF = LOCAL_RSLBUF_DESC [0,0,0,0],
    TABLE = (IF NULLPARAMETER(4) THEN 0 ELSE TABLE [0]),
    ACMODE = (IF NULLPARAMETER(5) THEN 0 ELSE ACMODE [0]),
    DSBMSK = (IF NULLPARAMETER(6) THEN 0 ELSE .DSBMSK [0]));

!+
! Copy internal buffer to caller's buffer, letting LIB$SCOPY_DXDX
! worry about its semantics.
!-

COPY_STATUS = LIB$SCOPY_DXDX (LOCAL_RSLBUF_DESC [0,0,0,0],
    RSLBUF [0,0,0,0]);

!+
! Store result string length if desired.
!-

IF RSLLEN [0] NEQA 0
THEN
    BEGIN
        LIB$ANALYZE_SDESC R2 (RSLBUF [0,0,0,0]; RSLLEN [0]);
        IF .RSLLEN [0] GTRU .LOCAL_RSLBUF_DESC [DSC$W_LENGTH]
        THEN
            RSLLEN [0] = .LOCAL_RSLBUF_DESC [DSC$W_LENGTH];
        END;
    END;

!+
! At this point we have 2 statuses that we could return to caller.
! Determine which one is the "most meaningful".
! If $TRNLOG returned anything other than $$$_NORMAL, then return that
! status, otherwise return the copy status.
!-

IF .TRNLOG_STATUS NEQU $$$_NORMAL
THEN
    RETURN .TRNLOG_STATUS;
RETURN .COPY_STATUS;

END;                                ! end of LIB$SYS_TRNLOG
```

```

.TITLE LIB$SYS_TRNLOG Translate logical name
.IDENT \1-010\
```


50	56	00000000G	00	007C	00000	.EXTRN	LIB\$ANALYZE_SDESC_R2		
	5E	FEF0	CE	9E	00002	.EXTRN	LIB\$SCOPY_DXDX, LIB\$_WRONUMARG		
	6C		03	83	0000E	.EXTRN	SYS\$TRNLOG		
	03		50	91	00012				
		50	00000000G	08	1B	00015			
				8F	D0	00017	.PSECT	_LIB\$CODE, NOWRT, SHR, PIC, 2	
					04	0001E			
02	AE	010E	8F	B0	0001F	1\$:	.ENTRY	LIB\$SYS_TRNLOG, Save R2, R3, R4, R5, R6	0178
	50	04	AC	D0	00025		MOVAB	LIB\$ANALYZE_SDESC_R2, R6	
			66	16	00029		MOVAB	-272(SP), SP	
	6E		51	B0	0002B		SUBB3	#3, (AP), DIFF	0274
04	AE		52	D0	0002E		CMPB	DIFF, #3	
	01		50	E8	00032		BLEQU	1\$	
					04	00035	MOVL	#LIB\$_WRONUMARG, R0	
					04	00035	RET		
08	AE	010E00FF	8F	D0	00036	2\$:	MOVW	#270, LOCAL_LOGNAM_DESC+2	0280
0C	AE	10	AE	9E	0003E		MOVL	LOGNAM, R0	0283
	06		6C	91	00043		JSB	LIB\$ANALYZE_SDESC_R2	
			05	1F	00046		MOVW	R1, LOCAL_LOGNAM_DESC	
		18	AC	D5	00048		MOVL	R2, LOCAL_LOGNAM_DESC+4	
			04	12	0004B		BLBS	STATUS1, 2\$	0284
			7E	D4	0004D	3\$:	RET		
			04	11	0004F		MOVL	#17694975, LOCAL_RSLBUF_DESC	0293
7E		18	BC	9A	00051	4\$:	MOVAB	LOCAL_RSLBUF, LOCAL_RSLBUF_DESC+4	0296
05			6C	91	00055	5\$:	CMPB	(AP), #6	0308
			05	1F	00058		CMPB	(AP), #6	
		14	AC	D5	0005A		BLSSU	3\$	
			04	12	0005D		TSTL	24(AP)	
			7E	D4	0005F	6\$:	BNEQ	4\$	
			03	11	00061		CLRL	-(SP)	
		14	AC	DD	00063	7\$:	BRB	5\$	
			6C	91	00066	8\$:	MOVZBL	@DSBMSK, -(SP)	
			05	1F	00069		CMPB	(AP), #5	
		10	AC	D5	0006B		BLSSU	6\$	
			04	12	0006E		TSTL	20(AP)	
			7E	D4	00070	9\$:	BNEQ	7\$	
			03	11	00072		CLRL	-(SP)	
		10	AC	DD	00074	10\$:	BRB	8\$	
		14	AE	9F	00077	11\$:	PUSHL	ACMODE	
		18	AE	9F	0007A		CMPB	(AP), #4	
		14	AE	9F	0007D		BLSSU	9\$	
00000000G	00		06	FB	00080		TSTL	16(AP)	
	54		50	D0	00087		BNEQ	10\$	
		0C	AC	DD	0008A		CLRL	-(SP)	
		0C	AE	9F	0008D		BRB	11\$	
00000000G	00		02	FB	00090		PUSHL	TABLE	
	55		50	D0	00097		PUSHAB	LOCAL_RSLBUF_DESC	0316
	53	08	AC	D0	0009A		PUSHAB	LOCAL_RSLBUF_DESC	0315
			13	13	0009E		PUSHAB	LOCAL_LOGNAM_DESC	0316
	50	0C	AC	D0	000A0		CALLS	#6, SYS\$TRNLOG	
			66	16	000A4		MOVL	R0, TRNLOG_STATUS	
							PUSHL	RSLBUF	0322
							PUSHAB	LOCAL_RSLBUF_DESC	0325
							CALLS	#2, LIB\$SCOPY_DXDX	
							MOVL	R0, COPY_STATUS	
							MOVL	RSLLEN, R3	
							BEQL	12\$	
							MOVL	RSLBUF, R0	
							JSB	LIB\$ANALYZE_SDESC_R2	

LIB\$SYS_TRNLOG Translate logical name
1-010 Translate logical name

G 1
16-Sep-1984 01:20:16
14-Sep-1984 12:39:35

VAX-11 Bliss-32 V4.0-742
[LIBRTL.SRC]LIBTRNLOG.B32;1

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(3)

08	63 AE		51 63 04	B0 B1 1B	000A6 000A9 000AD	MOVW CMPW BLEQU	R1, (R3) (R3), LOCAL_RSLBUF_DESC 12\$	:	0326
	63 01	08	AE 54	B0 D1	000AF 000B3	MOVW CPL	LOCAL_RSLBUF_DESC, (R3) TRNLOG_STATUS, #1	:	0328 0338
	50		04 54	13 D0	000B6 000B8	BEQL MOVL	13\$ TRNLOG_STATUS, R0	:	0340
	50		55 04	D0 000BC 000BF	13\$: RET RET	COPY_STATUS, R0	:	0341 0343	

; Routine Size: 192 bytes, Routine Base: _LIB\$CODE + 0000

276

0344

1

277

0345

1 END

278

0346

1

279

0347

0 ELUDOM

! end of module LIB\$SYS_TRNLOG

PSECT SUMMARY

Name	Bytes	Attributes
_LIB\$CODE	192	NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

Library Statistics

File	Total	Symbols Loaded	Percent	Pages Mapped	Processing Time
_\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	11	0	581	00:00.8
_\$255\$DUA28:[LIBRTL.OBJ]RTLILIB.L32;1	36	2	5	8	00:00.1

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LISS:LIBTRNLOG/OBJ=OBJ\$:LIBTRNLOG MSRC\$:LIBTRNLOG/UPDATE=(ENH\$:LIBTRNLOG)

Size: 192 code + 0 data bytes

Run Time: 00:04.6

Elapsed Time: 00:24.9

Lines/CPU Min: 4487

Lexemes/CPU-Min: 27387

LIBSSYS_TRNLOG Translate logical name
1-010 Translate logical name

H 1
16-Sep-1984 01:20:16

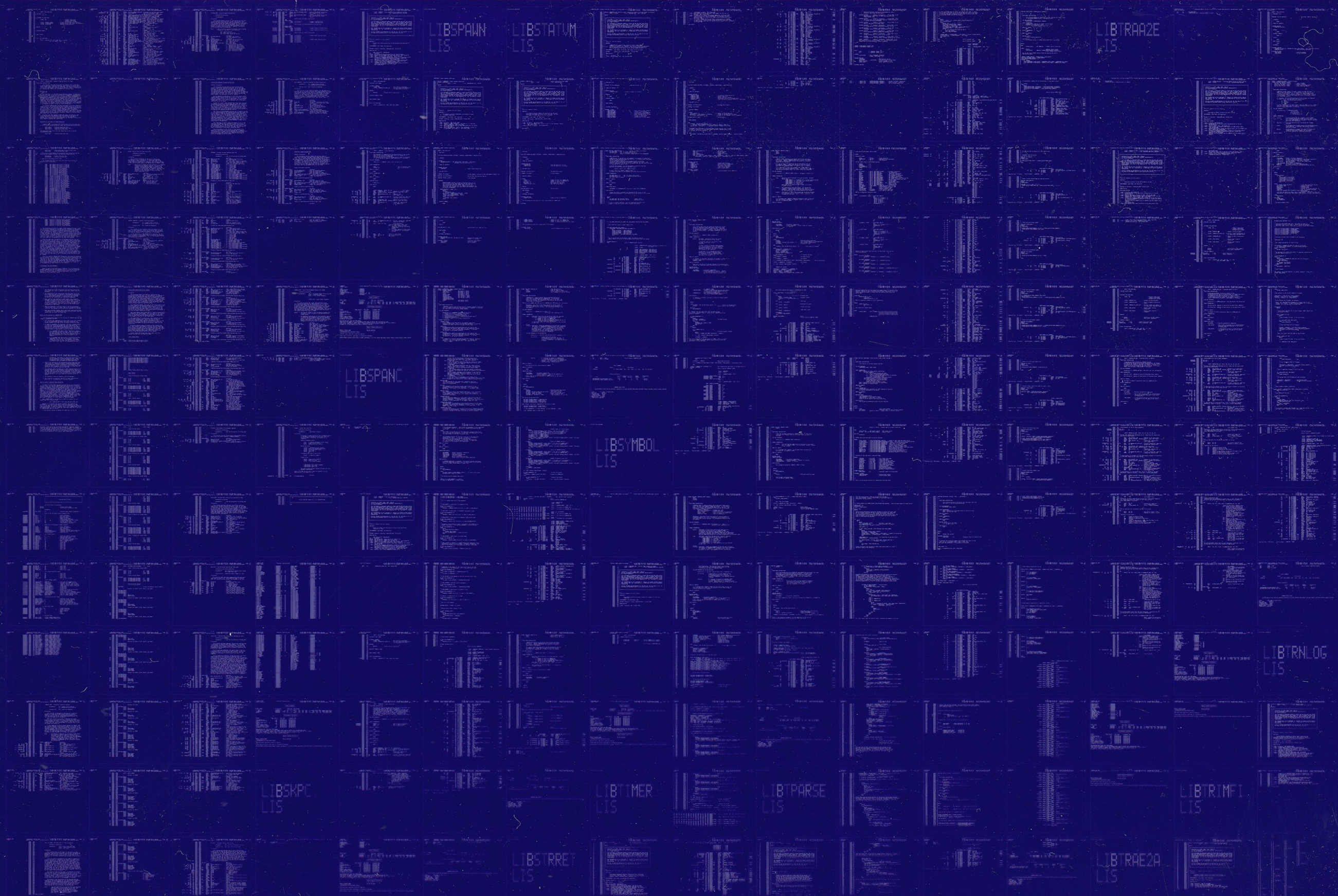
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; Memory Used: 86 pages
; Compilation Complete

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VAX/VMS V4.0

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